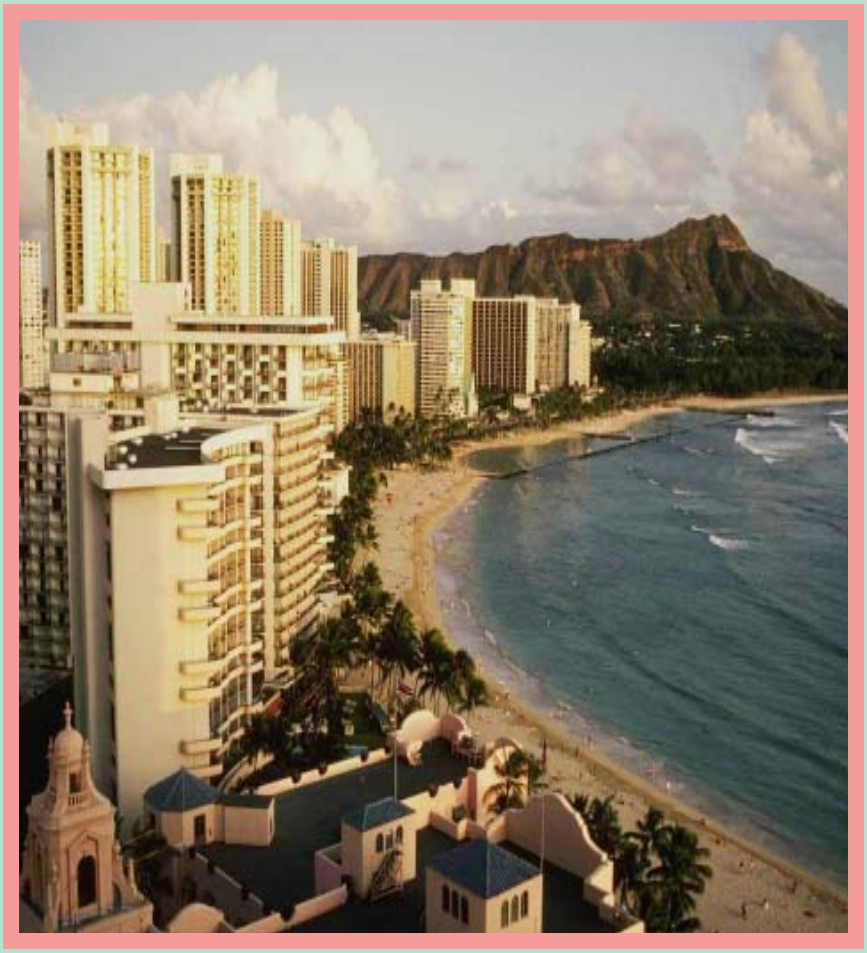
Indicators of Environmental Quality



State of Hawai`i Department of Health

January 2003

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919 Ala Moana Blvd. Room 312 Honolulu, Hawaii 96814 January 2003

Document Notes

Environmental Indicator: a tool that uses the best available data to measure the quality of the environment and/or progress made in protecting the environment.

This report includes a selection of seventeen environmental indicators, each occupying a single page. Each indicator shows a data set, a chart based on those data, and a discussion of the indicator and the data upon which it is based. Only data collected by, through or about the Hawaii State Department of Health programs are included.

The discussion accompanying each indicator is separated into five sections:

Explanation: the first section explains the data and chart, focusing on the fundamental picture portrayed the chart. Terms and caveats are also discussed in this section.

Implications: An "implications" section follows, with a short and sometimes subjective discussion of what impact the indicator findings may have on public health and the environment, and therefore on the Department of Health's (DOH) environmental programs.

Data Quality: The third section provides a one-word assessment of date quality for the indicator. Data quality is ranked as either High (± 5-10% confidence), Medium (± 10-25% confidence) or Low (± 25-50% confidence).

The last two discussion sections note the source of the data and comment on whether the data are required of DOH by the U.S. Environmental Protection Agency (EPA).
In most cases, when a percentage scale is used in a chart, the scale ranges from 0 to 100 percent. To more clearly show trends, some chart scales extend from values of 50% or 75% to 100%.

Data used are organized on a federal fiscal year (FFY) calendar unless otherwise noted, and usually cover the years 1997-2001 in order to show a five-year trend for each indicator. Some indicators do not have data available for that period, and some provide only a "snap shot" of information for a single year.

Acronyms

CAB	-Clean Air Branch
CWB	-Clean Water Branch
DOH	-Department of Health
EHA	-Environmental Health Administration
EPA	-U. S. Environmental Protection Agency
EPO	-Environmental Planning Office
NRIAQB	-Noise, Radiation & Indoor Air Quality Branch
OSWM	-Office of Solid Waste Management
SDWB	-Safe Drinking Water Branch
SHWB	-Solid & Hazardous Waste Branch
WWB	-Wastewater Branch

Ambient Levels of Sulfur Dioxide Compared to National Standards

Explanation: The national standard for sulfur dioxide (SO_2) concentrations was set by EPA at 80 micrograms/cubic meter ($\mu g/m^3$) as the annual average limit of SO_2 in ambient air. The Honolulu air monitoring station is located atop the DOH building downtown. Data from this station are shown here as representative of SO_2 concentrations in Hawai'i. The results show that the annual average over the past five years, 1-3 $\mu g/m^3$, has been well below the standard.

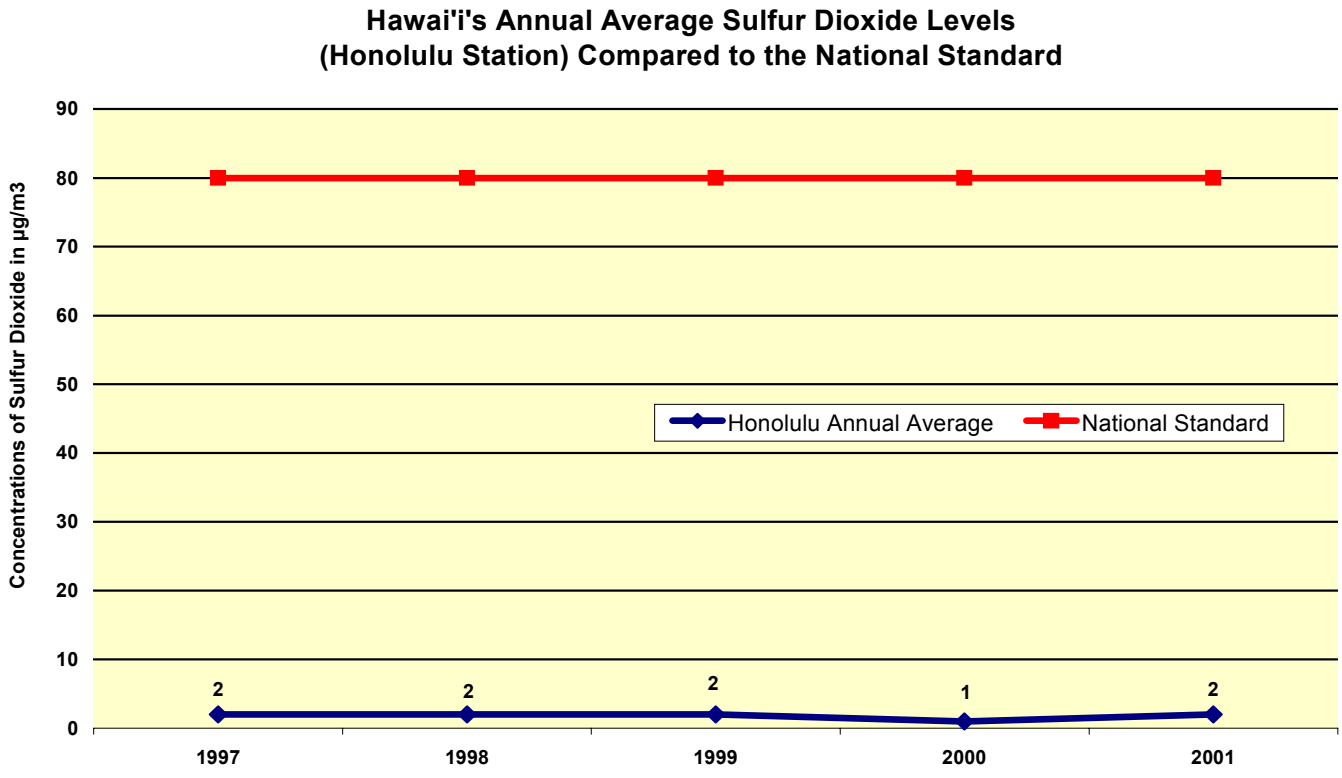
Implications: Hawai'i's annual average SO_2 concentrations are very low compared to the national standard. On persistent Kona wind days, volcanic emissions from the island of Hawai'i can be transported to Oahu and are experienced mostly as sulfates (SO_4). These sulfates are included in the PM_{10} (particulate) category expressed on the next page.

Data Quality: High (± 5-10%confidence).

Source: DOH Clean Air Branch.

Data are required by the EPA.

Sulfur Dioxide Data		
FFY	Honolulu Annual Average of SO_2 ($\mu g/m^3$)	National Standard for SO_2 ($\mu g/m^3$)
1997	2	80
1998	2	80
1999	2	80
2000	1	80
2001	2	80



Ambient Levels of Air-borne Particulates Compared to National Standards

Explanation: The EPA has set the annual average of the particulate matter, or PM_{10}, at 50 micrograms/cubic meter ($\mu g/m^3$). PM_{10} is defined as particles with an aerodynamic diameter less than or equal to 10 microns. At the Honolulu monitoring station, located in the heart of downtown, the annual average concentration of particulates varied from 8 to 16 $\mu g/m^3$. At 16 ug/m^3 this annual average is well below EPA's standard.

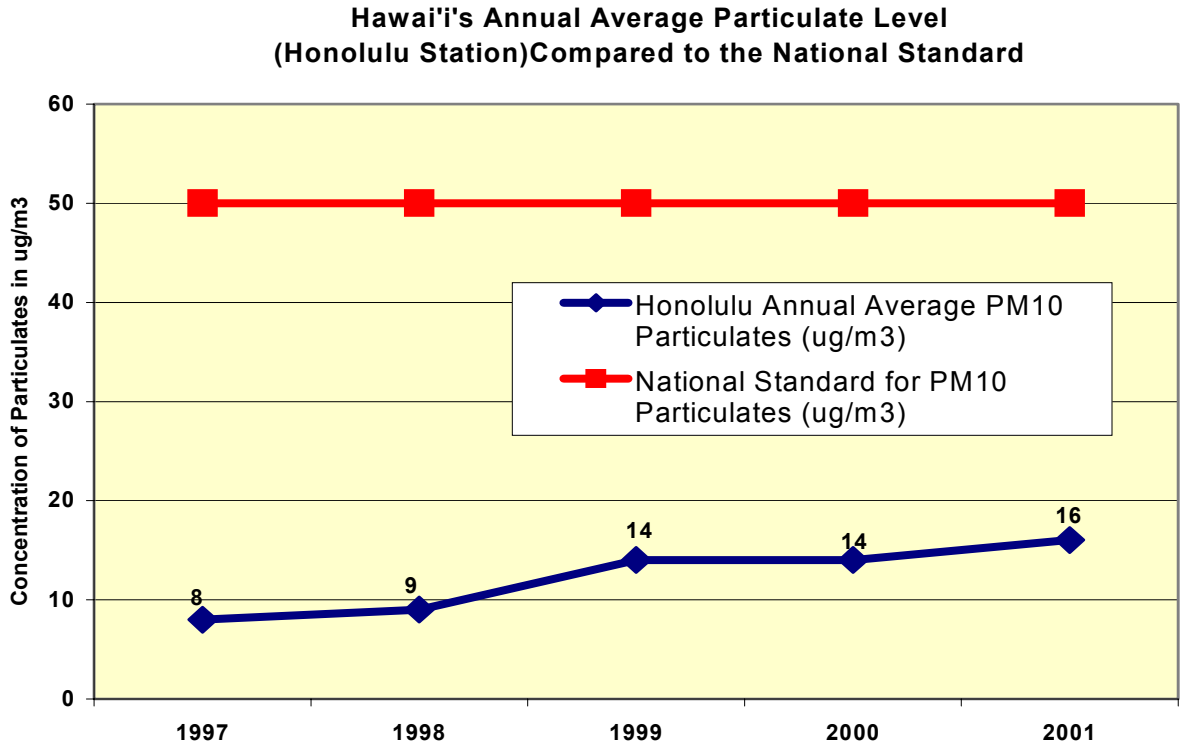
Implications: The concentrations measured in Honolulu are far below the national standard. The visual trend line shows that, within the past 5 years, the particulate levels dropped to a low of 8 $\mu g/m^3$ in 1997, and then slowly returned to 16 $\mu g/m^3$. PM_{10} concentrations are not significantly affected by sulfates from volcanic emissions carried over O'ahu by Kona winds.

Data Quality: High (± 5-10%confidence).

Source: DOH Clean Air Branch

Data are required by the EPA.

Air-borne Particulates Data		
FFY	**Honolulu Annual Average of PM_{10}**	**National Standard for PM_{10}**
1997	8	50
1998	9	50
1999	14	50
2000	14	50
2001	16	50



Ambient Levels of Carbon Monoxide Compared to National Standards

Explanation: EPA set the 1-hour average limit for carbon monoxide (CO) concentrations in ambient air at 40,000 µg/m³. This indicator reflects CO data measured at the Honolulu monitoring station located in the heart of downtown, an area with heavy automobile traffic. The CO measurement differs from the other indicators in this report as it reflects a 1-hour average each year rather than an annual average. The maximum 1-hour average is obtained by calculating the arithmetic mean of the highest 1-hour value recorded daily. In addition to the 1-hour national standard, EPA has set an 8-hour standard for CO at 10,000 µg/m³. Hawai'i recorded 8-hour values are also well below the national standard.

Implications: CO has declined from the five-year high recorded in 1998. In 2001 the highest 1-hour average was 5,244 µg/m³.

Data Quality: High (± 5-10%confidence).

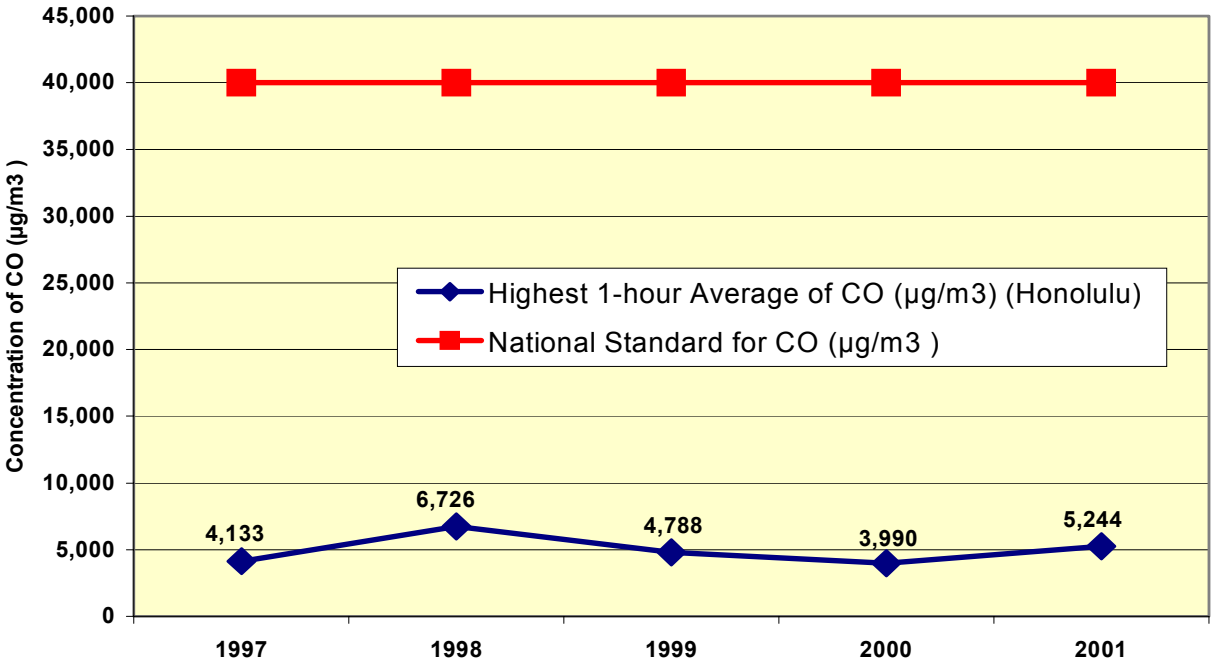
Source: DOH Clean Air Branch

Data are required by the EPA.

Carbon Monoxide Data

FFY	Highest 1-hour Average of CO (µg/m³) (Honolulu)	National Standard for CO (µg/m³)
1997	4,133	40,000
1998	6,726	40,000
1999	4,788	40,000
2000	3,990	40,000
2001	5,244	40,000

Hawai'i's Highest 1-hour Average for Carbon Monoxide (Honolulu Station) Compared to the National Standard



Percentage of Schools in Compliance with Asbestos Managements Plan Regulations

Explanation: Buildings constructed before 1980 may contain asbestos in pipe insulation, structural fireproofing, mechanical areas, and wall plaster. If asbestos-containing building materials (ACMBs) are not properly identified and managed they may be unintentionally disturbed, causing the release of asbestos fibers. ACMBs still exist in Hawai'i's schools. EPA regulations require each school to prepare an Asbestos Management Plan, which documents the presence and condition of ACMBs and specifies provisions for properly managing any ACBM present. Plans are required to contain inspection and re-inspection reports; periodic surveillance reports; response action information; notices sent to parents and employees; designated person information and custodian training documents. Since the program's inception in 1988, over 400 schools have been contacted by NRIAQB staff and informed of this requirement. For the purposes of this measurement, compliance is assumed unless an inspection proves otherwise. The number of schools required to comply will change as new schools open and existing schools are closed.

Implications: The chart shows a decline in compliance since the mid 1990s, likely the result of increased inspections revealing additional non-compliance. Nine out of ten schools have an asbestos management plan, but there is not necessarily a direct correlation between the existence of a plan and its implementation. However, in this past year compliance improved, reflecting both an increase in the implementation of plans in schools with ACMBs and some older school closures as a result of new school construction.

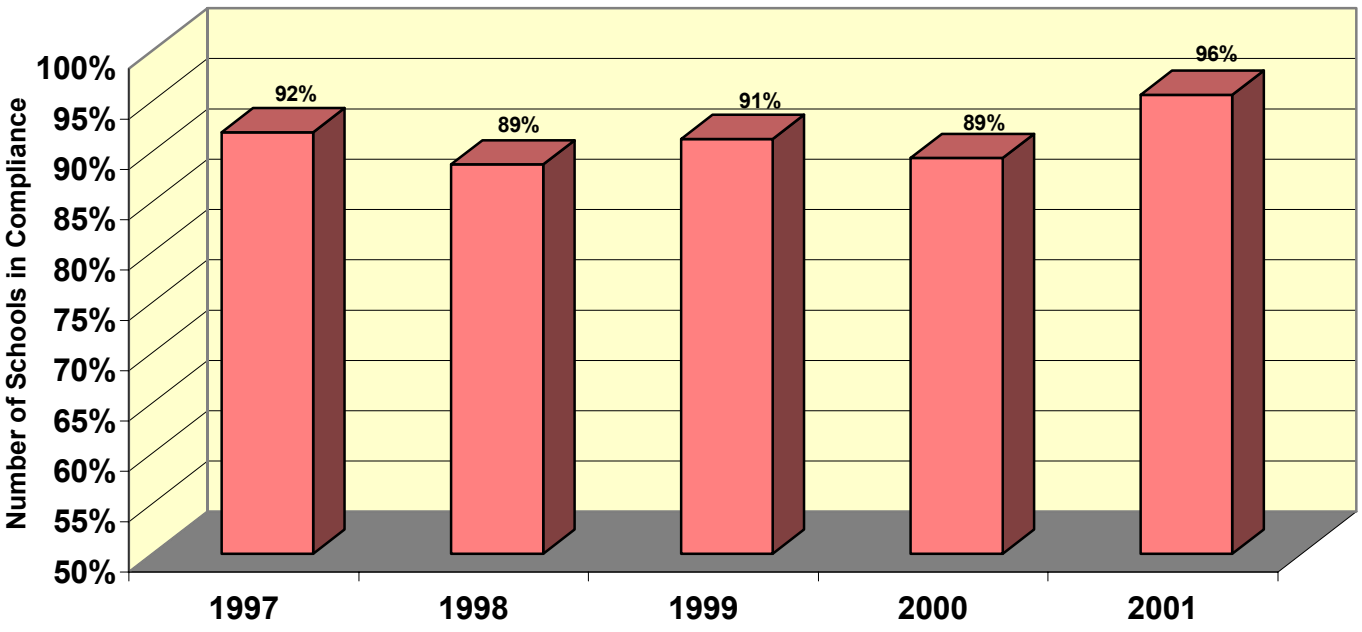
Data Quality: Medium (±10-25% confidence).

Source: Tom Lileikis (NRIAQB)

Data are required by the EPA.

Percentage of Schools in Compliance with Asbestos Management Plan Regulations

FFY	Total Number of Schools Required to Comply	Number of Schools in Compliance	Percentage of Schools in Compliance
1997	419	385	92%
1998	389	345	89%
1999	387	353	91%
2000	412	368	89%
2001	409	391	96%



Contaminated Site with Clean-up Completed

Explanation: Progress made in the clean-up of contaminated sites, broken down into three categories, is measured by the date of completion of the clean-up process. The vast bulk of the clean-ups are comprised of leaking underground storage tank (LUST) sites. The next three indicators on the following pages will provide more specific data relating to the progress of each site category.

Implications: The number of known LUST sites increased from 1998 to 2000, when regulations required many older tanks to be removed from the ground, replaced, or upgraded. Since then, staff has been focusing on a backlog of release cases. As a result, many of these cases are now being addressed by owners and operators in compliance with Hawai'i's new underground storage tank (UST) rules. The increase of solid waste clean ups was due to landowner actions after completed enforcement cases.

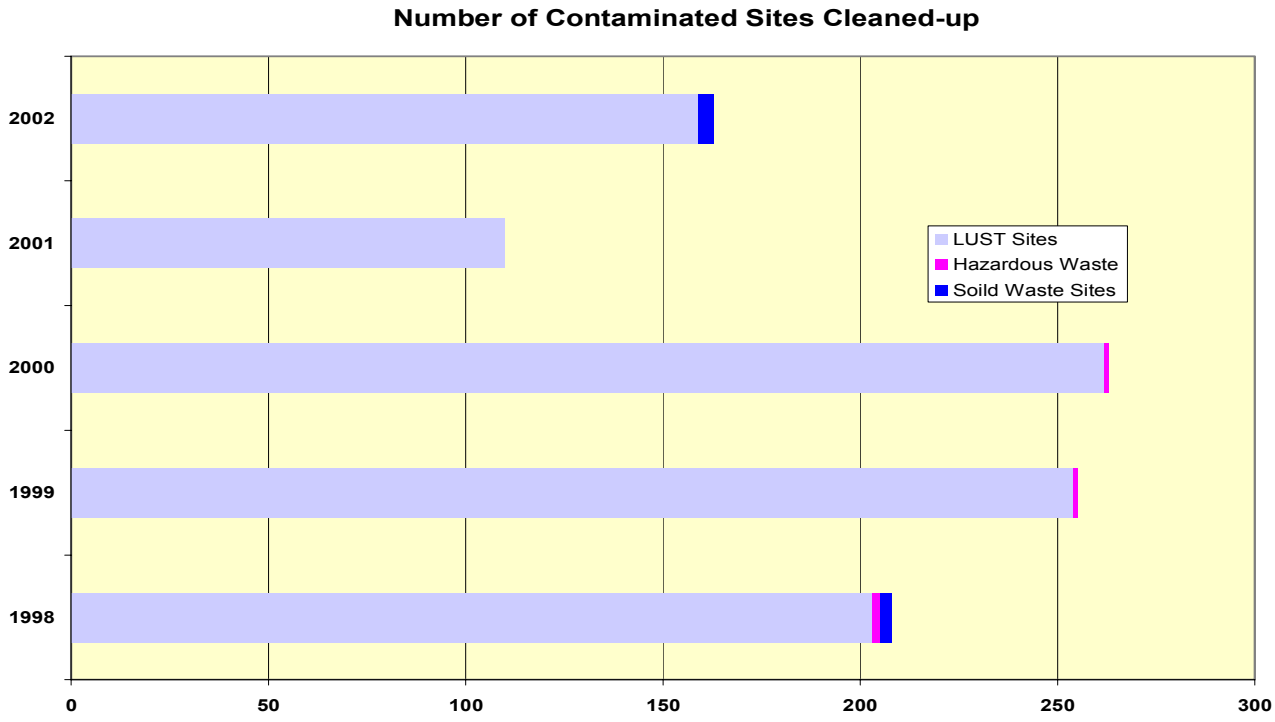
Data Quality: High (± 5-10%confidence).

Sources: Grace Simmons (SHWB), Lane Otsu (SHWB), and Greg Olmsted (SHWB).

Data are required by the EPA.

Contaminated Sites Clean-up Data

FFY	Hazardous Waste	Soild Waste Sites	LUST Sites	Total Sites
1998	2	3	203	208
1999	1	0	254	255
2000	1	0	262	263
2001	0	0	110	110
2002	0	4	159	163



Cumulative Percentage of Leaking Underground Storage Tank Sites with Clean-up Partially Addressed or Completed

Explanation: Of the 1,702 confirmed releases from underground storage tanks from 1987 to 2002, 77% have had 'clean-up' completed. Seventeen percent of the sites have had 'clean up' partially addressed, (i.e., efforts have begun which: manage contaminated soil, remove free product, manage dissolved petroleum, and/or monitor the groundwater or soil), and 6% have yet to be addressed.

Implications: Some of the data for this indicator are included with data listed on the previous page; the data on this page pertains only to LUST sites and includes releases which have received no clean-up activity or which have had clean-up only partially addressed. Clean-ups for this category of contaminated sites have increased, while the number of new releases has decreased. Of the 6% of the sites that have not been addressed, some are recent releases for which the DOH has yet to receive information on clean-up efforts. None of the unaddressed sites constitutes an emergency situation - all emergencies are addressed immediately by the Hazard Evaluation & Emergency response personnel.

Data quality: High (± 5-10% confidence)

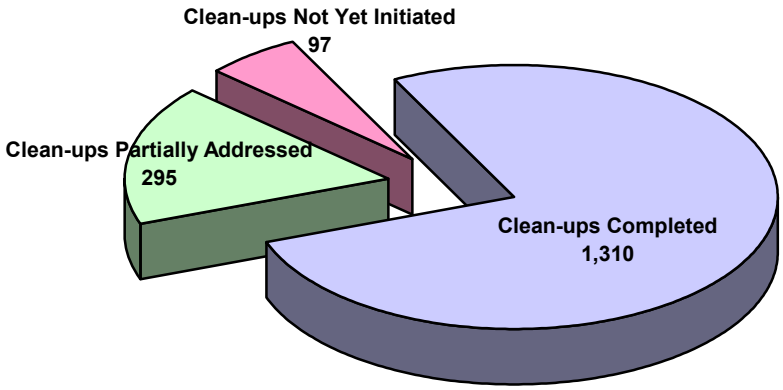
LUST Site Clean-up Data

Total Tanks	Active Tanks	Closed Tanks	Confirmed Releases	Clean-ups Partially Addressed	Clean-ups Not Initiated	Clean-ups Completed
6,729	1,925	4,804	1,702	295	97	1,310

Source: Greg Olmsted (SHWB).

Data are required by the EPA

Status of Leaking Underground Storage Tank Sites Cleaned Up as of FY 2002



Quantity of Hazardous Waste Generated in Hawai'i

Explanation: Hazardous waste generation, as presented in this indicator, is reported to EPA by "large quantity generators" biennially in odd years. "Small quantity generators" were included only in the 1995 data, as a result waste generation appears to peak in 1995. Overall, the quantity of waste generated, as shown in this indicator, has ranged from roughly 1,300 to 3,000 tons annually during the period from 1991 to 1999. Data for 2001 have not yet been released. Hazardous wastes in wastewater have been excluded from the indicator because the data quality for wastewater volumes is particularly questionable, especially since volume was removed as an EPA reporting requirement in 1997. The majority of hazardous wastes in Hawai`i are sent to permitted commercial treatment storage disposal facilities on the mainland, while the recyclable solvents are processed in state. Hazardous waste is defined in 40 CFR 261.3 as waste having any of the four hazardous characteristics: ignitability, corrosivity, reactivity, or toxicity, or a waste specially listed as a substance to be regulated as a hazardous waste. Common examples include paint, battery acid, oil, lead, and waste bleaches.

Implications: Compared to other states, hazardous waste generation has been relatively low in Hawai'i. During the ten-year period represented by this indicator, hazardous waste generation appears to be decreasing after a slight increase between 1993 and 1997.

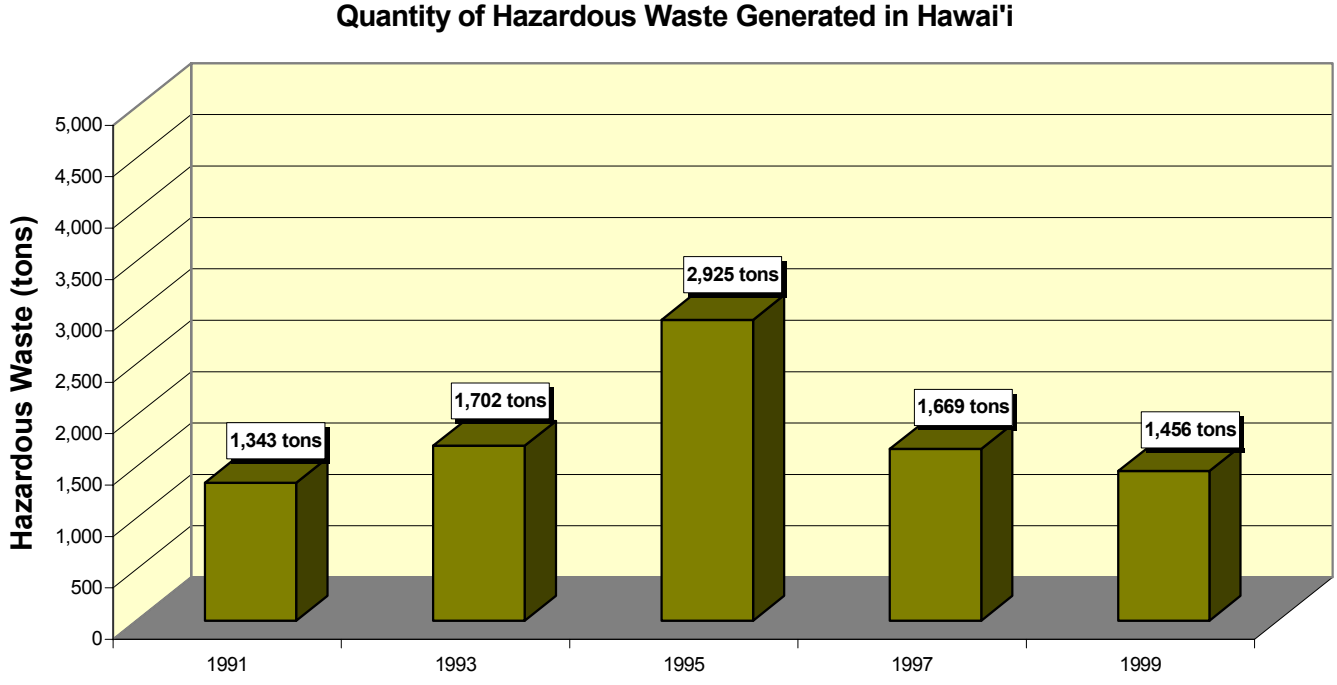
Data Quality: Low (± 25-50%) confidence.

Source: Grace Simmons (SHWB)

Data are required by the EPA.

Data for 2001 have not yet been released by the EPA.

Hazardous Waste Generation Data	
FFY	Hazardous Waste Generated in Tons
1991	1,343
1993	1,702
1995	2,925
1997	1,669
1999	1,456



Percentage of Solid Waste Recycled in Hawai'i

Explanation: The percentage of solid waste diverted from landfills for recycling in Hawai'i is slowly increasing. In 2001, DOH did not receive diversion figures from some recycling facilities, as reporting is voluntary. As a result, we can only reflect partial data for this recycling indicator. The amount of solid waste produced each year has not risen significantly. For the purposes of this indicator, tires and batteries are included in the 'other' category in the graph below. Amounts diverted do not include waste sent to H-Power for incineration and power generation.

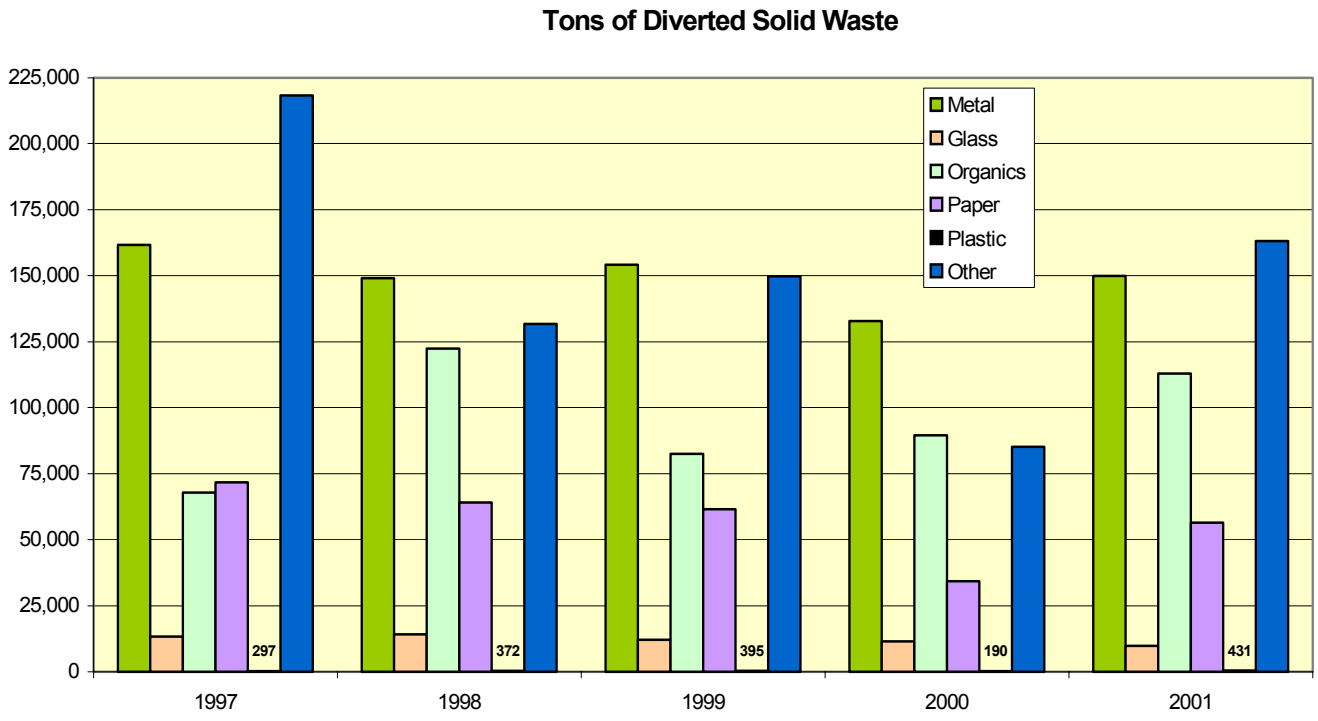
Implications: Hawai'i's legislated goal was 50% solid waste recycling by the year 2000. We continue to fall short in accomplishing that goal. Hawai'i does not have a large local market for material, so most recycled goods must be shipped out for processing. These shipping costs make it difficult for Hawai'i recycling businesses to compete, especially in a period when the market price for raw recycled materials is low.

Data Quality: 2000 & 2001: Low (± 25-50%) confidence; 1997-1999: Medium (± 10-25%) confidence.

Source: Lane Otsu (SHWB)

Data are not required by the EPA

Total Solid Waste Recycling Data (in tons)				
FFY	**Produced Statewide**	**Disposed Statewide**	**Diverted Statewide**	**Percentage Diverted**
1997	2,132,000	1,599,000	533,000	25.0%
1998	2,004,000	1,524,000	481,000	24.0%
1999	1,884,477	1,424,005	460,472	24.4%
2000	1,794,496	1,441,000	353,496	19.7%
2001	1,971,336	1,478,668	492,668	25.0%



Oil and Chemical Releases in Hawai‘i

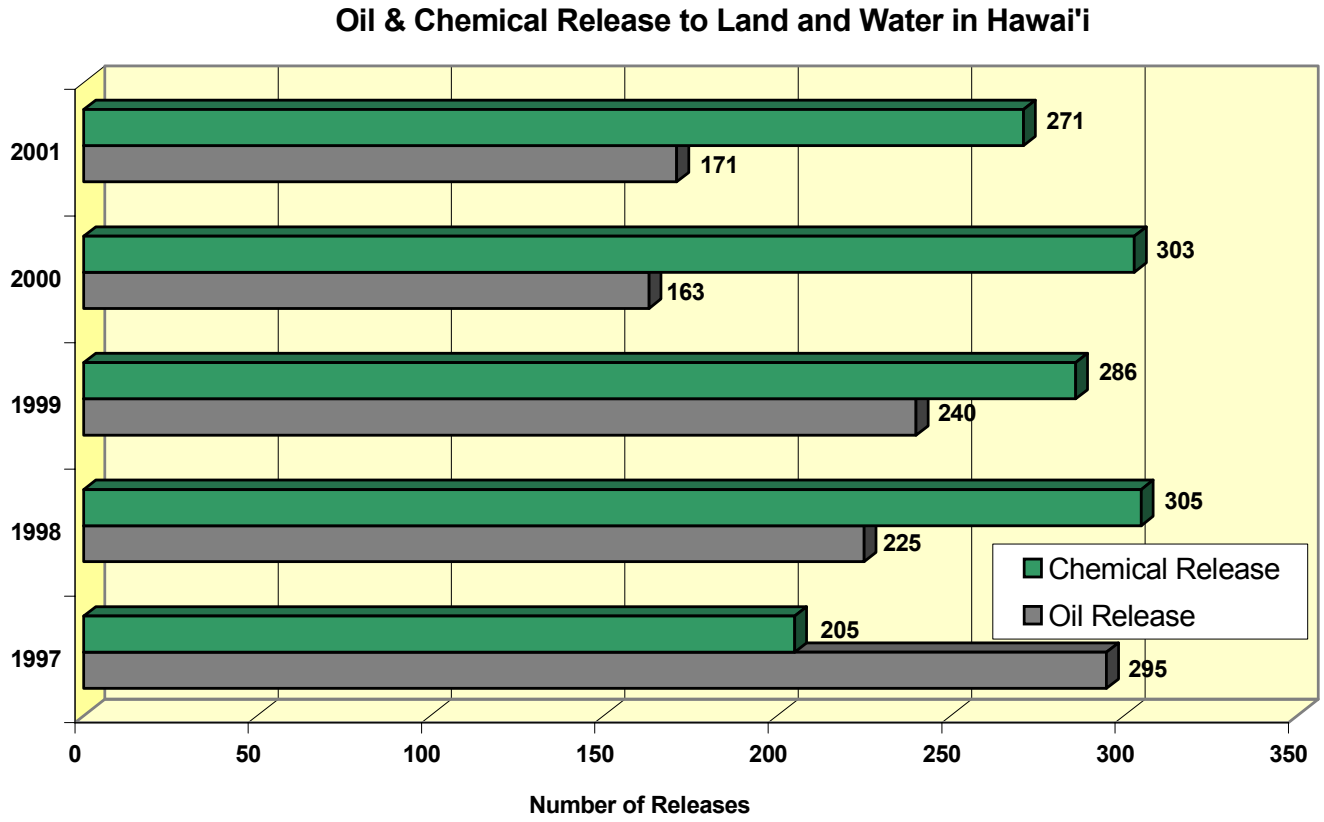
Explanation: Any releases of oil or chemicals must be reported to DOH. No clear trend exists in the number of oil and chemical releases from 1997 to 2001. The database currently contains only initial information regarding a release. Follow-up information on releases (including volumes of releases) is not included.

Implications: Hazard Evaluation and Emergency Response (HEER) office crews respond to roughly 400-500 ‘spills’ each year. Most are minor, a few are major, and some are false alarms. An increase in the number of releases does not necessarily correlate with an increase in damage to the environment. Future tracking and reporting will include volumes of spills in addition to numbers of spills.
Data Quality: Medium (± 10-25%) confidence.

Source: Marsha Graf (HEER).

Data are not required by the EPA.

Oil & Chemical Release Data		
FFY	**Oil Releases**	**Chemical Releases**
1997	295	205
1998	225	305
1999	240	286
2000	163	303
2001	171	271



Percentage of Hawai'i's Population Served Drinking Water in Compliance with 1994 State and Federal Microbiological and Chemical Maximum Contaminants Levels

Explanation: In 2002, one hundred percent of Hawai'i's residents and visitors were served drinking water which met microbiological or chemical standards, called maximum contaminant levels (MCLs). Water that exceeds MCLs is believed to be harmful to human health. Population figures are derived by summing the populations each public water system reports. The population served drinking water in exceedance of an MCL is counted for the entire year. In actuality, the exposure is usually for a few days or less. This indicator uses the 1994 standards in order to show trends based on a steady baseline. Measuring progress towards a moving target (due to changing MCLs) would make this indicator too complex.

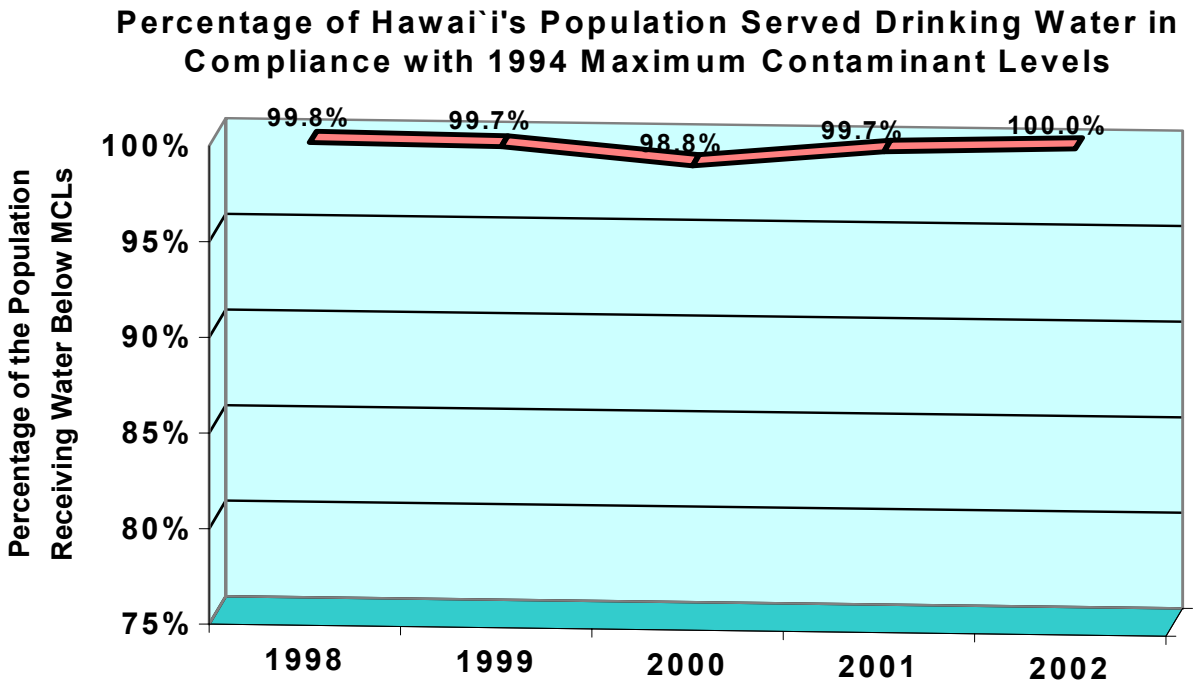
Implications: The compliance rate has consistently stayed above 99% over the last 5 years, except in 2000 when it fell slightly below. In that year, microbiological violations in one medium-sized Big Island water system and one medium-sized O'ahu water system decreased the population served water below MCLs . Whenever a violation is found, the public is notified through electronic media, hand-delivered notices, or published notices.

Data Quality: High
(± 5-10%confidence)
Source: Ann Zane (SDWB)

Data are required by the EPA

Drinking Water MCL Compliance Data

FFY	Total Population Served Drinking Water	Population Served Water Below MCLs	Percentage Population Served Water Below MCLs
1998	1,333,717	1,331,353	99.8%
1999	1,294,772	1,291,099	99.7%
2000	1,291,907	1,277,016	98.8%
2001	1,289,360	1,285,821	99.7%
2002	1,300,251	1,300,251	100.0%



Cumulative Number of Sanitary Surveys Being Conducted for Drinking Water Systems in Hawai'i, 2002-2006

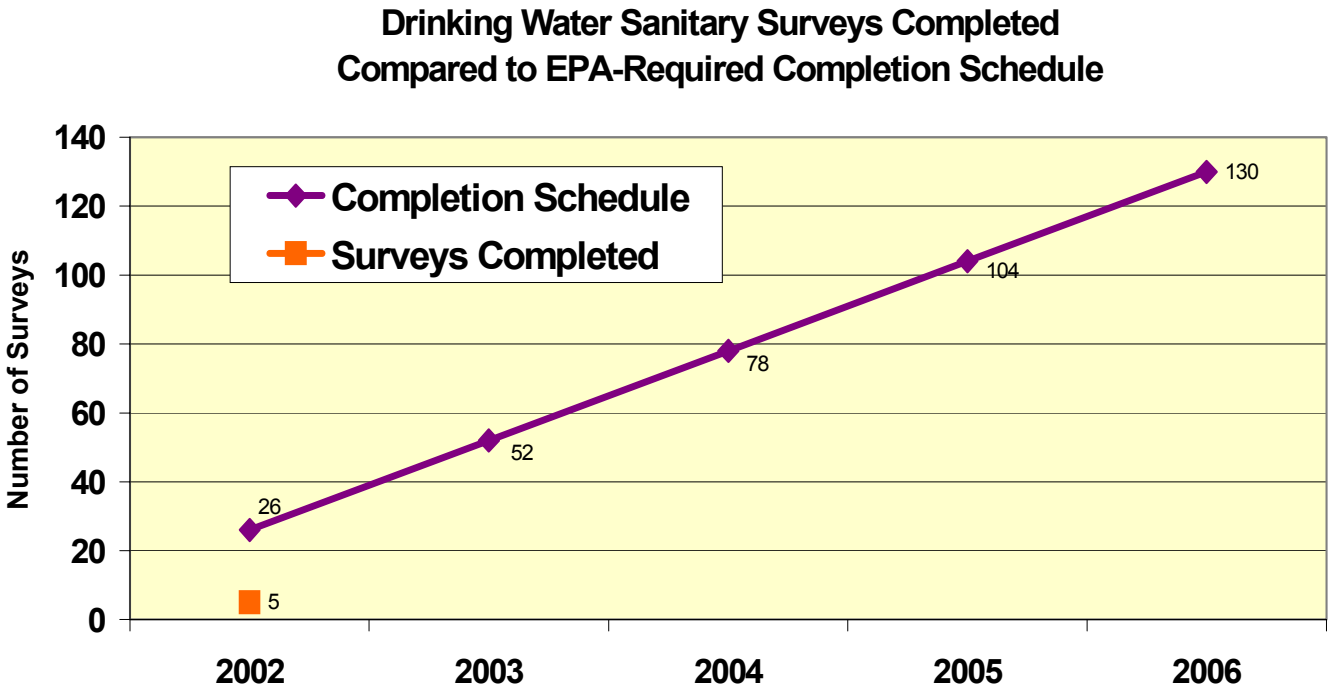
Explanation: A sanitary survey consists of a periodic review of the water source, facilities, equipment, operation and maintenance practices and records to verify that a public water system is operating properly. The DOH goal is to conduct 'Sanitary Surveys' of all public water system source, treatment, and distribution operations in a five-year period. For Hawai`i, that averages 26 surveys per year. The SDWB completed the first five years by meeting its requirements, and is now beginning the next five-year cycle from 2002-2006. In 2002, the goal was not met due to personnel shortages, implementing new rules and regulations, and dealing with issues regarding national security of drinking water systems.

Implications: The last round of surveys was held from 1997 to 2001, so it is timely for DOH to inspect these water systems again. Within 30 days of each survey, the SDWB submits a sanitary survey report to the purveyor discussing any deficiencies and recommendations. The SDWB also requests a response from the purveyor within 30 days of receiving the report. When problems are found during surveys, the risk of water contamination is assessed. If the problem poses an imminent risk of contamination to the source or finished water, the SDWB will direct the purveyor to promptly correct the problem.

Data Quality: High
(± 5-10%confidence)

Source: William Wong (SDWB)

FFY	Total Number of Systems to Survey	Surveys Completed Annually
2002	26	5
2003	52	
2004	78	
2005	104	
2006	130	



Percentage of Underground Injection Wells in Compliance with State and Federal Regulations

Explanation: The overall percentage of underground injection well facilities in compliance with state and federal regulations (those with a current permit) for the calendar year 2002 has remained the same since 2001 at approximately 55%. Most noncompliant injection well facilities were those for drainage injection wells – wells used for rainfall runoff disposal. Thus, the compliance percentage for drainage injection well facilities was approximately 46%. Injection well facilities for sewage disposal and industrial-related wastewater disposal had a higher compliance percentage at approximately 75%. Permit renewals for sewage and industrial-related injection are processed before permit renewals for drainage injection.

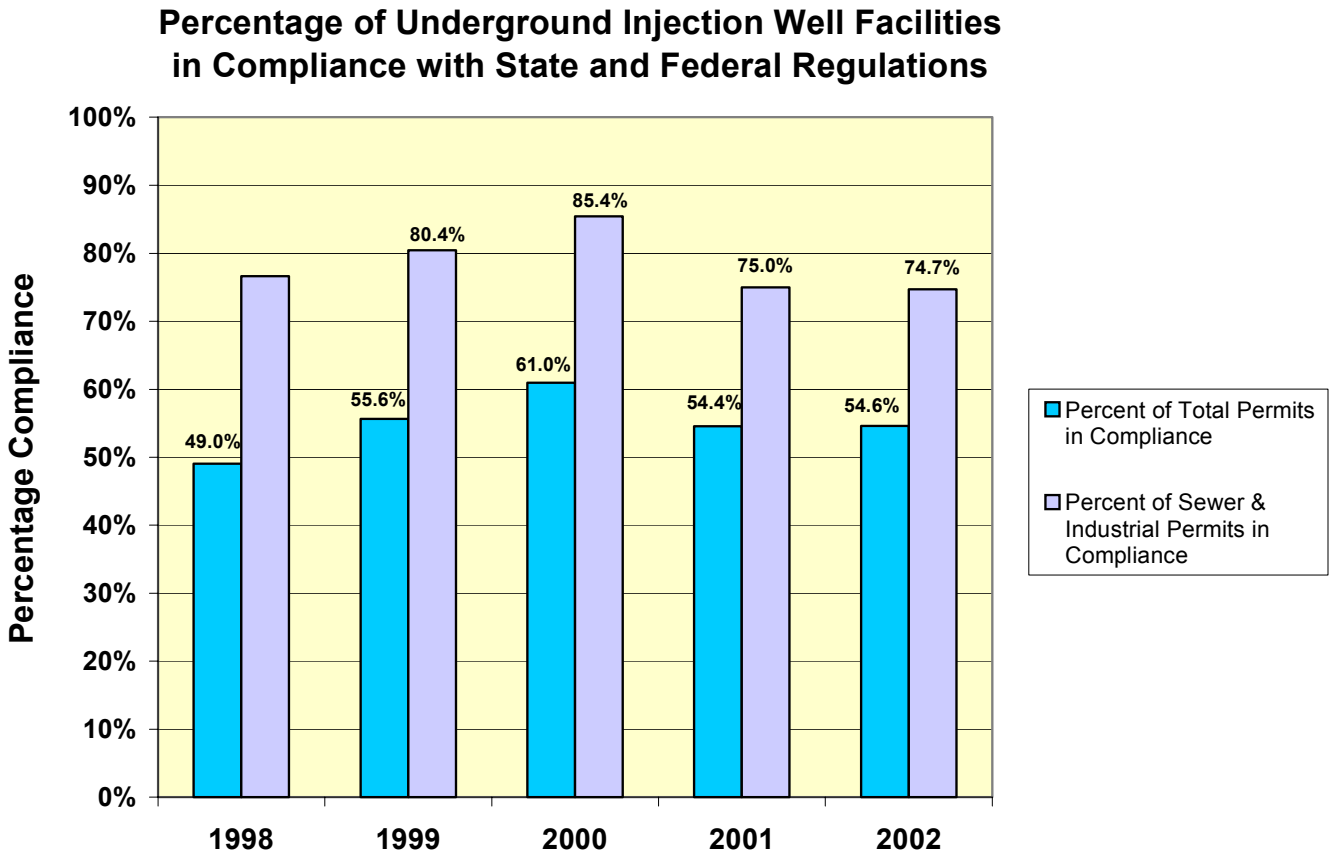
Implications: Sewage and industrial-related injection present a greater risk for groundwater contamination in comparison to drainage injection. However, for the overall compliance percentage, all injection well facilities are counted equally.

Data Quality: High (± 5-10% confidence).

Source: Chauncey Hew (SDWB)

Percentage of Underground Injection Wells in Compliance with State and Federal Regulations				
FFY	Total UIC Permits	Total Expired Permits	Percent of Total Permits in Compliance	Percent of Sewer & Industrial Permits in Compliance
1998	504	257	49.0%	76.6%
1999	559	248	55.6%	80.4%
2000	574	224	61.0%	85.4%
2001	590	268	54.6%	75.4%
2002	617	280	54.6%	74.7%

Data are required by theEPA



Beach Closure/Warning Days Annually Due to Sewage or Water Pollution

Explanation: Residents and visitors use our public beaches and the ocean for recreation and fishing. Sewage and chemical spills can restrict our enjoyment and use of the shoreline as well as poison aquatic life. The following table shows the number of times beaches were posted with warning or closure signs (unsafe due to water pollution) by the DOH.

Implications: Beach postings increased in 2002 largely due to the DOH taking a more precautionary stand. For a sewage spill, the CWB reviews bacteria data prior to having the signs removed.

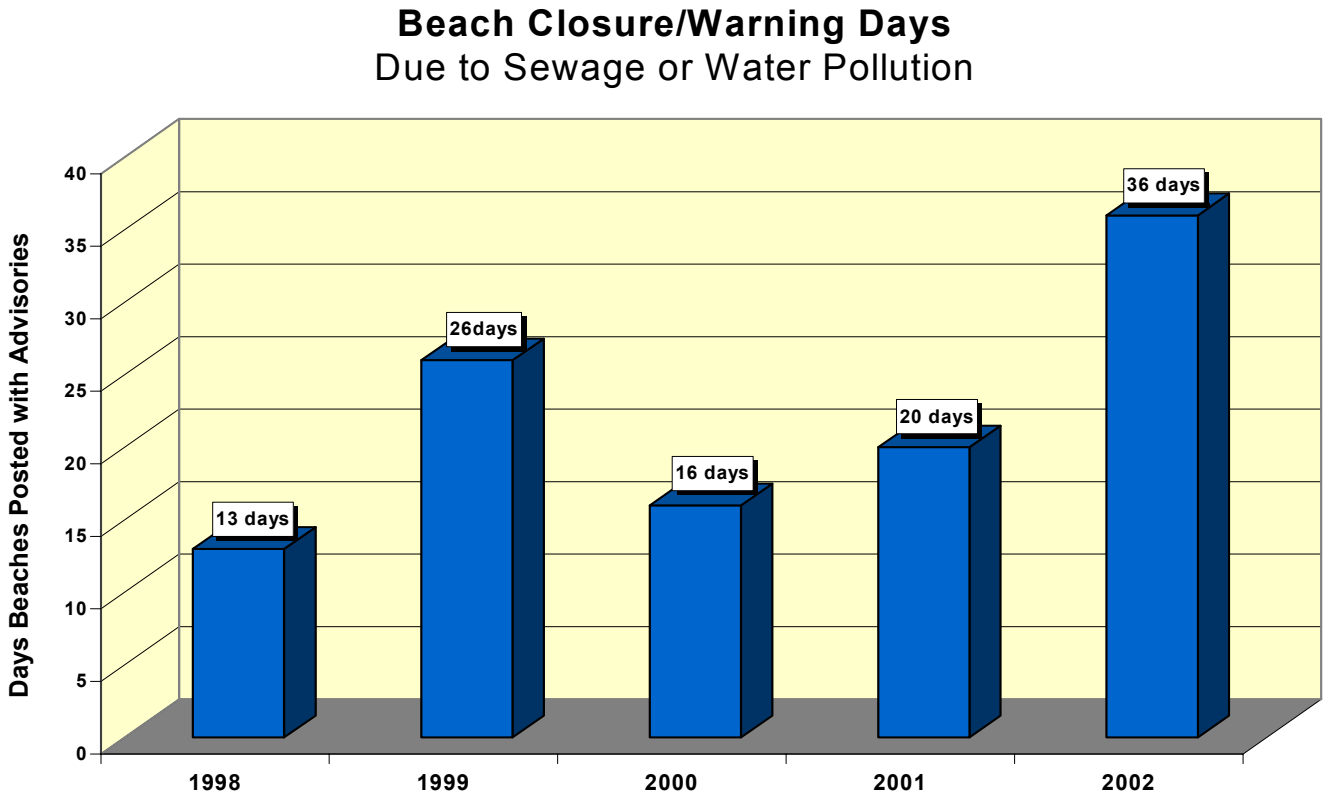
Data Quality: Medium (± 10-25%) confidence.

Source: Ann Teruya (CWB)
Data are not required by the EPA,
but are reported in DOH's biennial 305(b) report.

Beach Closure/Warning Days Annually Due to Pollution

Calendar Year	Days beaches closed per year
1998	13
1999	26
2000	16
2001	20
2002	36

Note:
Other agencies may also post warning signs on beaches. For example, the City and County of Honolulu also posts warning signs on beaches after opening stream mouths to drain water.



Percentage of Wastewater Recycled Annually

Explanation: Wastewater recycling (or reuse of water treated to a level appropriate for irrigation purposes) has risen from roughly 15 million gallons per day in 1997 to nearly 20 million gallons per day in 2002, representing an increase of 3% over the past five-year period.

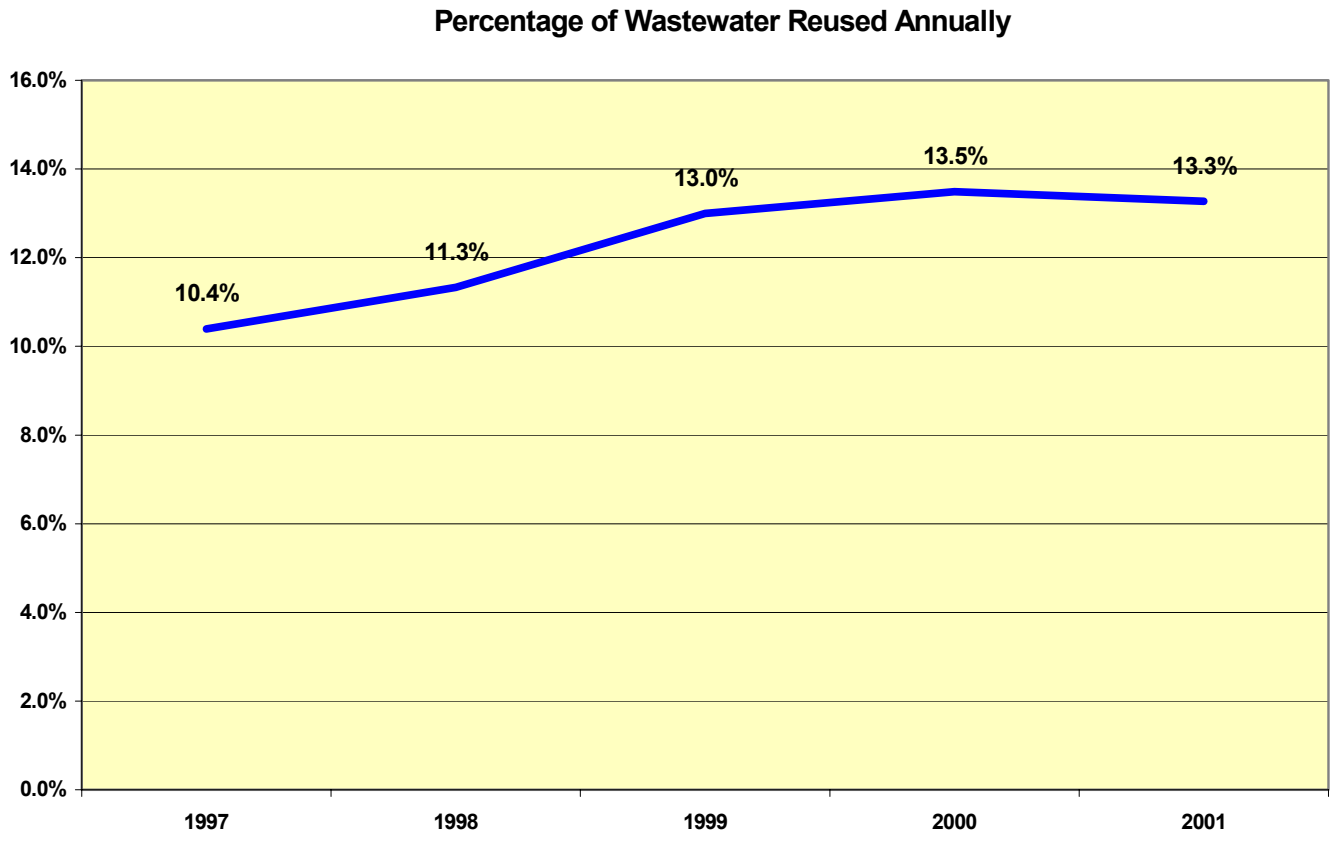
Implications: DOH has plans to encourage reuse to about 25 mgd by 2005 and 30 mgd by 2015, or about 20%.

Data Quality: Medium (± 10-25%) confidence.

Source: Tomas See (WWB).

Data are not required by the EPA.

Wastewater Reuse Data			
FFY	**Total Wastewater Treated (MGD)**	**Wastewater Reused (MGD)**	**Percentage Reused**
1997	150.1	15.6	10.4%
1998	150.0	17.0	11.3%
1999	150.0	19.5	13.0%
2000	150.0	20.2	13.5%
2001	150.0	19.9	13.3%



Wastewater Treatment Plant Operations & Maintenance Compliance Records

Explanation: About three-fourths of Hawai'i's wastewater treatment plants show full compliance when inspected by the Wastewater Branch staff. Major operation and maintenance (O&M) deficiencies, effluent violations or permit violations warrant an unsatisfactory rating.

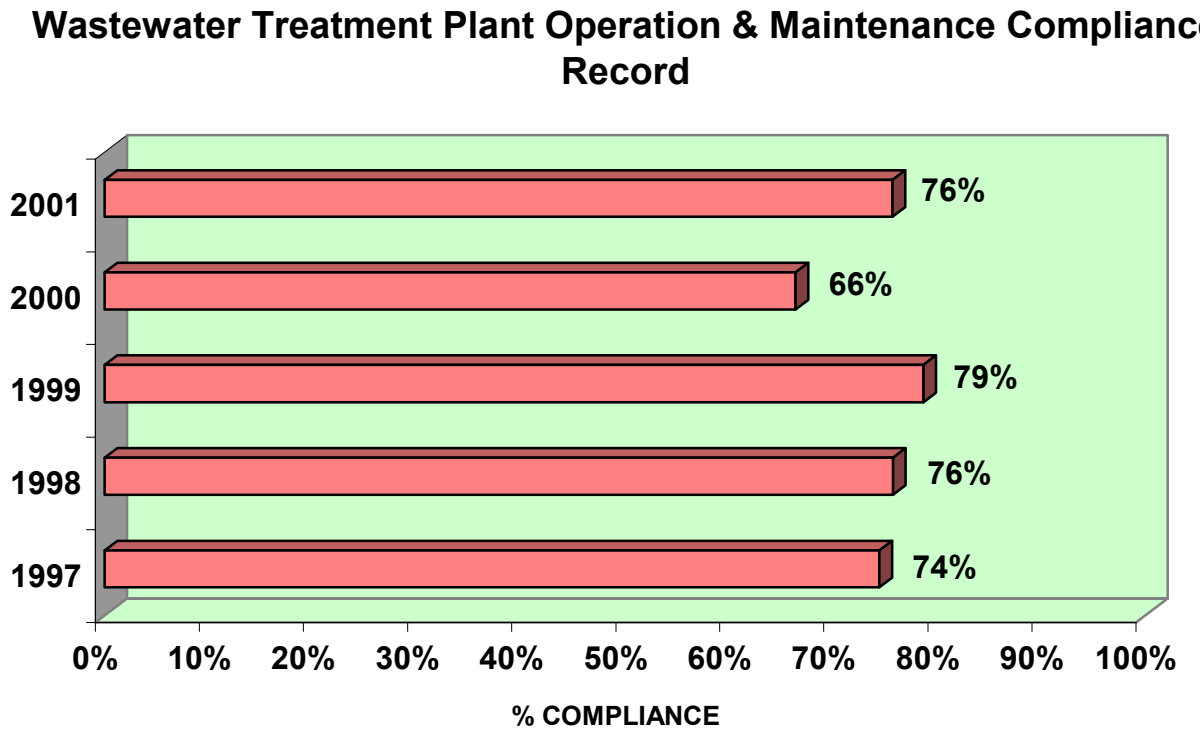
Implications: The stated goal of the WWB of 95% compliance by the year 2000 has not been achieved because of O&M deficiencies or effluent violations.. The WWB staff believe operation and maintenance compliance leads to fewer sewage spills because well-maintained equipment breaks down less often. Another cause of the unsatisfactory ratings is the number of underground injection permits (which are covered by the O&M inspection) that have expired (see page 13 for a discussion of the underground injection permit program).

Data Quality: High
(± 5-10% confidence).

Source: Marshall Lum (WWB)

FFY	Number of Plants Inspected	Number of Plants Rated Unsatisfactory	Percent in Compliance
1997	176	45	74%
1998	169	41	76%
1999	164	35	79%
2000	113	38	66%
2001	144	35	76%

Data are not required by the EPA.



Number of Impaired Streams Listed, 2002

Explanation: Hawaii's 2002 List of Impaired Waters includes the stream segments on EPA's revised 1998 List of Impaired Waterbodies plus seven additional streams. Additional pollutants were listed for many of the segments previously identified as impaired. Waters previously listed by EPA on the basis of old data or visual assessments will remain on the list until there is sufficient data to justify delisting. Total Maximum Daily Loads (TMDLs) of pollutants must eventually be developed for all waterbodies on the Impaired Waters List. Currently, TMDLs have been established for the Ala Wai Canal, Waimanalo Stream and Kawa Stream. TMDLs for Kaneohe, Waikele and Kapaa streams are scheduled for completion and EPA approval by Spring 2003. DOH contractors also recently began TMDL development for streams draining into Nawiliwili Bay and Pearl Harbor.

Implications: DOH is committed to addressing water quality issues from an ahupua'a perspective. This ancient Hawaiian concept embraces the watershed perspective and encompasses nearshore coastal waters, linking the mountains to the sea. This streams indicator, however, refers only to the inland part of a watershed with freshwater flows that usually have salinity lower than 0.5 ppt , including all stream tributaries. In some cases, numbers may be lower than in previous years solely due to the consolidation of individually listed tributaries into a single listed stream. Overall, the increasing number of listed streams reflects the finding that as we collect more data we uncover more streams that are not meeting our water quality standards. The identification of these streams allows for a process that identifies pollutant sources so that agencies, nonprofits and community groups can begin to address these sources of pollution.

Data Quality: Medium (± 10-25%) confidence.

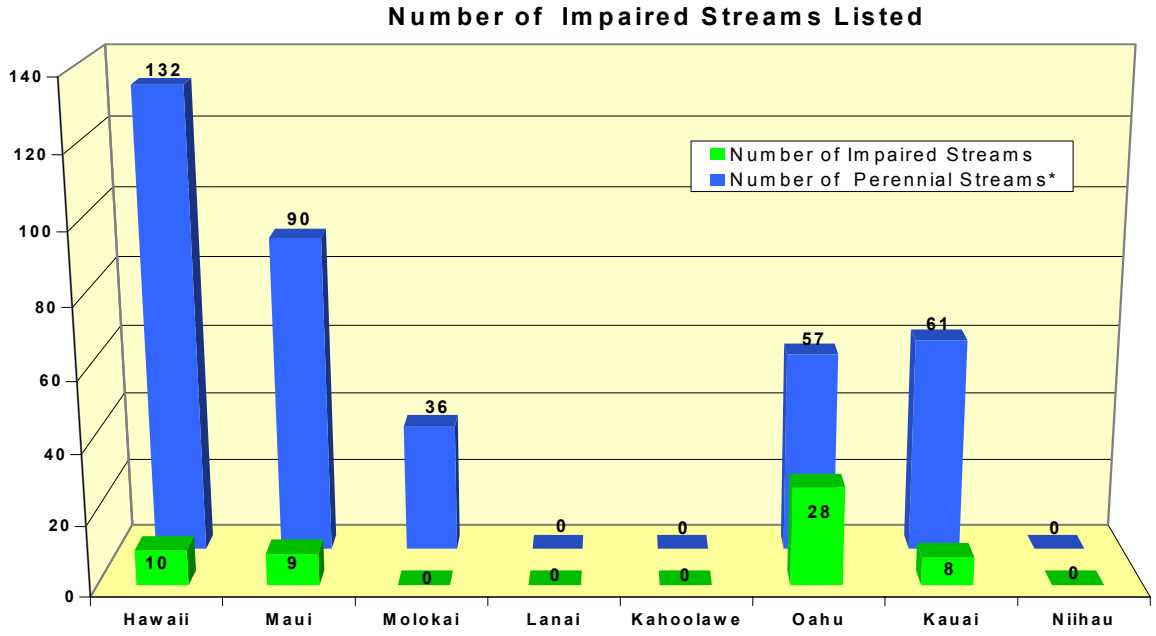
Source: Katina Henderson (EPO)

Data are required by EPA.

Number of Impaired Streams Listed

Island	Number of Impaired Streams	Number of Perennial Streams*
Hawaii	10	132
Maui	9	90
Molokai	0	36
Lanai	0	0
Kahoolawe	0	0
Oahu	28	57
Kauai	8	61
Niihau	0	0
TOTAL	**55**	**376**

*As identified in the 1990 Hawai`i Stream Assessment (Commission on Water Resource Management and National Park Service).



Toxics Release Inventory for Hawai‘i

Explanation: Overall releases of toxic compounds for Hawai‘i’s air, water and land are staying constant. The exception has been the increase of off-site transfers of hazardous waste to locations outside of Hawai`i. While air emissions have not decreased significantly, Hawai‘i has very clean air.

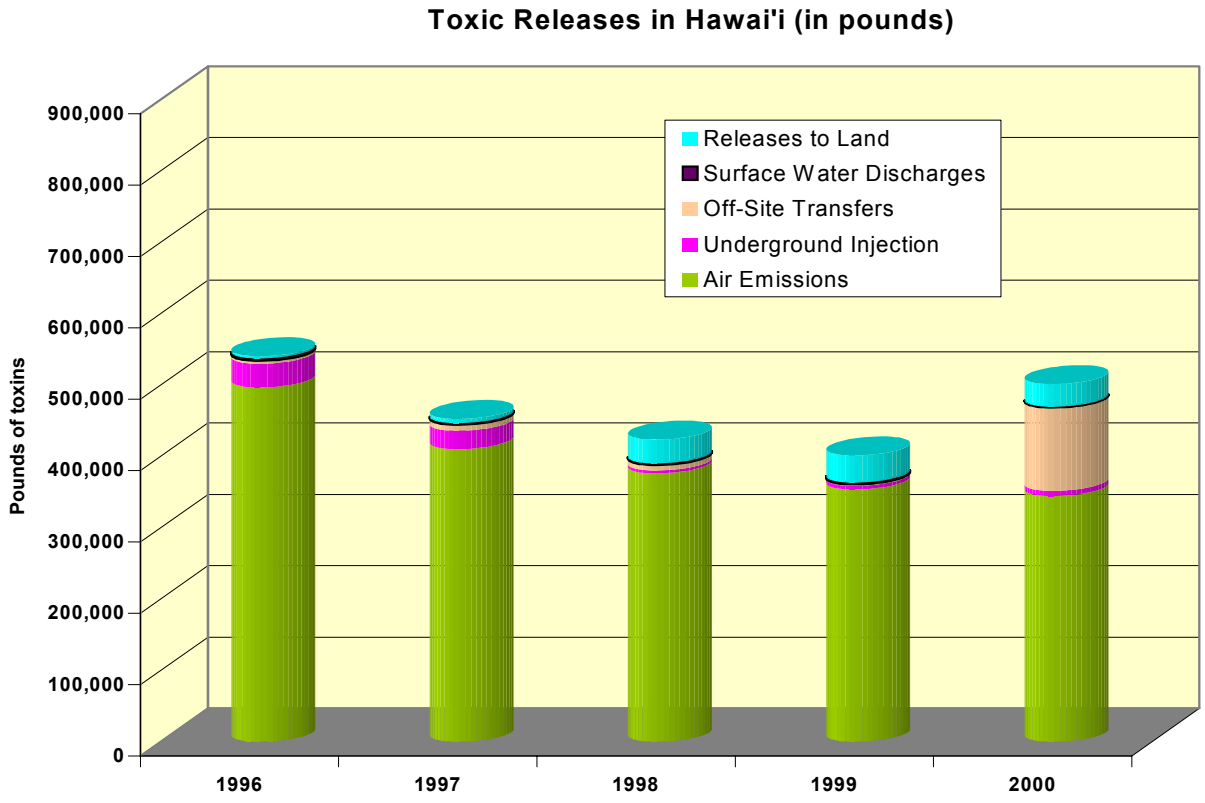
Implications: The declining trend in toxic releases is positive as air, water and land are all environmentally connected. Further declines in legal releases would be beneficial, however they are not expected.

Data Quality: Medium (± 10-25 %confidence).

Source: EPA’s Toxic Release Inventory (available on EPA’s web site.)

Data are not required of DOH by EPA, but EPA does require these data from private industries.

Toxic Release Data (in pounds)					
FFY	Air Emissions	Surface Water Discharges	Underground Injection	Releases to Land	Off-Site Transfers
1996	496,508	3,265	33,209	3,290	3,995
1997	409,983	2,119	25,750	6,188	8,365
1998	376,116	2,057	3,849	33,634	7,768
1999	353,488	2,489	5,065	38,098	1,993
2000	344,337	1,224	7,279	31,833	116,487



For More Information:

State of Hawai`i, Department of Health
Environmental Health Administration

Environmental Health Administration Offices:

Compliance Assistance	586-4528
Environmental Planning	586-4337
Environmental Resources	586-4575
Hazard Evaluation & Emergency Response	586-4249
Environmental Management Division	586-4304
Clean Air Branch	586-4200
Clean Water Branch	586-4309
Safe Drinking Water Branch	586-4258
Solid & Hazardous Waste Branch	586-4226
Wastewater Branch	586-4294
Environmental Health Services Division	586-1522
Food & Drug Branch	586-4725
Noise, Radiation & Indoor Air Quality Branch	586-4701
Sanitation Branch	586-8000
Vector Control Branch	483-2535
State Laboratories Division	453-6652